

Counterpoise



January 2011

2010 Ham of the Year



**Tom Bryan
W5COM**



Join us at
First Lutheran Church
867 S. Lincoln Ave
El Cajon, Ca
Jan 14, 2011
7PM



2011 Officers

President	Ruth Pattin	KJ6GRL
Vice President	Dave Santoro	W6BTS
Treasurer	Joseph Matterson	KI6TTF
Secretary	Floyd Lang	AF6BC
Past President	Mike Maston	N6OPH

2011 Board Of Directors

Dave Ward	KI6GRN
Raymond Boisvert	W1CTM
Bill Hays	N9QO
Richard Brown	N6WWC
Paul Thompson	KJ6BYF
Ed Price	WB6WSN

2011 Standing Committees

Counterpoise Editor	NF9T	Tuck Miller
Education		
Estate Sales	N6JOJ	Tom Myrick
Field Day		
Health & Welfare		
Historian	KI6QDB	Paul Weekley
Membership		
Photographer		
Prizes		
Public Relations		
SANDARC Delegate		
Alt. Delegate		
Social Chair		Polo Navarro
Swap Meet	N6JOJ	Tom Myrick
Technical	W2IRI	Bob Boehme
WA6BGS Trustee	AA6CQ	Michael Martak
WAMO		

Ruth's Reflections



I am looking forward to 2011, as we begin to gain our footing and understanding of what our jobs entail. WOW !! I believe we have a great group of Board Members who will work together for the ARCEC. Just in case anyone doesn't know the names of the officers and Board Members here is a list:

President: Ruth Pattin KJ6GRL 619-922-9694
 Vice President: Dave Santoro W6BTS
 Secretary: Floyd Lang AF6BC
 Treasurer: Joseph Matterson KI6TTF

Directors: Dave Ward KI6GRN
 Ray Boisvert W1CT
 Paul Thompson KJ6BYF
 Bill Hayes N9QO
 Richard Brown N6WWC
 Ed Price WB6WSN

We had a wonderful time at our Christmas Party. The Hometown Buffet always has a huge assortment of good food to eat.

It was an honor for me to be able to present Tom Bryan the HAM OF THE YEAR Award. What a great choice the ARCEC made this year.

I was also honored to present Mike Maston with his plaque as Past President. In acknowledgment for his service this year as Secretary, Vice President, and finally President. All these offices were noted on his plaque.

We had a good selection of prizes to give away too. The party started at 5:00 PM. I looked at my watch as I got to the car and it was 8:50 PM. I hope every one had a good time. It sounds like a lot of the membership wants to have a Pot Luck next year. We will get that settled in

(Continued on page 4)

ARCEC Counterpoise

The Amateur Radio Club of El Cajon, a group of Amateur Radio operators, interested and active in the service of the Amateur Radio service, publish a monthly newsletter, where members and officers can post information of interest to other members.

Our policy is to print and/or post only information that is related to Amateur Radio, and not items of a political or religious nature, unless it has an impact on Amateur Radio, such as antenna ordinances, etc.

If a member wishes to have printed a topic that is not Amateur Radio related, they can submit a copy to the club newsletter editor, any club officer, and the matter will be discussed and decided upon by the Board of Directors.

No PERSONAL attacks will be allowed.

Submissions are due on the 3rd Thursday of each month!!

Officers

2011



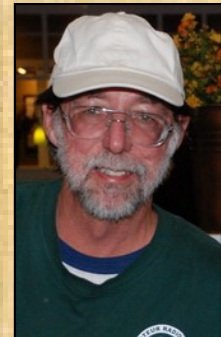
President
Ruth Pattin KJ6GR



Secretary
Floyd Lang
AF6BC



Vice President
David Santoro
W6BTS

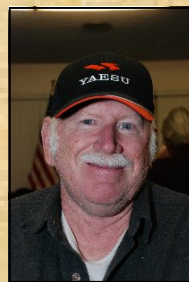


Treasurer
Joseph Masterson
KI6TTF

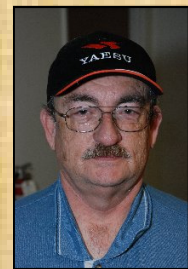
Board of Directors



Bill Hays
N9QO



Dave Ward
KI6GRN



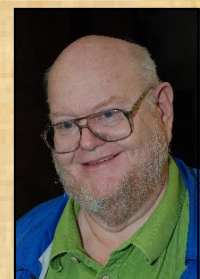
Paul Thompson
KJ6BYF



Raymond Boisvert
W1CTM



Richard Brown
N6WWC



Ed Price
WB6WSN

(Continued from page 2)

plenty of time for every one to plan for it.

I would like to thank you for the honor of being your president for the coming year. I will work for you to lead Our Club in the way you want it to go. I am going to need a lot of help to make this the year we want it to be. Please be willing to volunteer for committees. You will be welcomed with open hearts. Right now I need help on the Audit Committee and some one to do the Prize Table. We will need help on many other things throughout the year, and I will post those things on the Reflector.

So, in closing I hope each of you had the Merriest of Christmases and will have a Most Prosperous New Year.

73's and 88's

Ruth Pattin

President

Treasurer's Report

Joseph KI6TFF

Checking

Beginning Balance: 2584.44

Debits

Mike KG6TDP	7.61
Mike N6OPH	33.94
Big Apple Silkscreen	174.00

Deposits

Membership	270.00
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Current Balance 2638.90

Savings

Previous Balance: 2149.61

Debits:	0.00
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Deposits:	0.09
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Ending Balance: 2149.70



Calendar of Events

January 4 Board of Director's Meeting
January 13 General Membership Meeting
January 15 T-Hunt, Grossmont College Parking Lot

HAPPY NEW YEAR



Meeting Minutes

December 9, 2010
Floyd Lang, AF6BC



Pledge

At 1900 hours Virgil Pattin Lead us in the Pledge of Allegiance.

Greetings

President Mike Maston Greeted the Membership.

Ballot Committee

The president formed a ballot committee. Members on the committee were Steve Weed, Martin McBride and Anselmo Ruiz

Post Office Box

Mike Maston commented on the P.O. Box key and lock issues. He also said the Tower Trailer license plate fee has been paid.

Motions

Joseph Matterson made a motion that we proceed with the orders of the day.

Steve Weed made a motion that we elect our officers and board members by acclamation. The motion was voted on and failed. Yes was 7 votes, No was 15 with 2 abstentions.

Ballots for officers and board members were handed out. A ballot for ham of the year was also passed out and the voting was done by secret ballot.

Potluck Dinner Break

During the voting a potluck dinner was available to all.

Treasurer's Report

After the break Joseph presented the financial report. The report was accepted by the membership.

Election Results

The election results were announced by Steve Weed.

President:	Ruth Pattin
Vice President:	Dave Santoro
Treasurer:	Joseph Matterson
Secretary:	Floyd Lang

The Board of Directors

Dave Ward	BILL Hayes
Ray Boisvert	Paul Thompson
Rich Brown	Ed Price

The Ballot Committee was discharged with thanks.

Home Brew

Second Place Expert Antenna:	Tom Bryan
First Place Expert Antenna:	Axel
First Place Novice Antenna:	Raymond Boisvert

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What is HAM Radio?

By KI6UPY, Joseph

About the Author

I was first introduced to HAM Radio when my dad dragged me into studying. At first I had no idea what I was getting into. But when I started participating in nets and events, it sparked my interest. I wrote this article simply to help myself explain it to friends who did not understand it well.



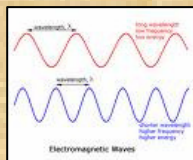
Intro and how to get a license

HAM or Amateur Radio is a fun way of communicating around the globe. To be a HAM you must study for and pass a test made up of 35 multiple choice questions randomly chosen from a list of 391 questions. At most 9 questions can be answered incorrectly to pass. There are different levels of being a HAM. Technician (first question pool), General (second question pool) and Extra (third question pool of 50 chosen for the test). The level determines the operating privileges for the licensee.



Bands

The operating privileges are also what "bands" operators can use. Band names consist of 2-meters, 70-centimeters, 10-meters, 80-meters and other select measurements, the length of the band is how far the radio waves jump before bouncing again. The most widely used and known is the 2-meter band.



Call Signs

When licensed, a HAM receives a call sign chosen sequentially with certain other traits. The format can be 2-by-3, 2-by-1, or 1-by-2. a 2-by-3 is most commonly the first assigned format. a 2-by-3 would look like this, KI6UPY. The

'by' is the numeral. The numbers in the format name resemble letters. The first letter of a call sign can either be A, K, N, or W, the second (if letter) can be any letter of the alphabet chosen sequentially. The numeral is dependant on the area code of the operator. The final part of the call sign is called the suffix and consists of the letters after the numeral, assigned sequentially. Breakdown KI6UPY. K (first letter) I (sequential letter) 6 (area code) UPY(Suffix).



Antennas

The bigger the antenna, the further your transmission will travel. Different types of antennas consist of Directional, Dipole, J-Pole, and other designs. The antenna matters. Many HTs (handheld radios) come with a 'rubber ducky' or a stubby, a rubber antenna with a low rating. this can be replaced in many cases. See figure 4.



Wattage and output power

The higher the output power, the farther the signal will travel. Most HTs will have a maximum of 5 watts output. Mobile (vehicular) stations will have near 45 watts output. This is placed in line with the antenna and station.



Nets

A net or network is like an over the air meeting where there is a net control and the net members. They are scheduled and organized events.

Clubs

There are also active clubs operators can join. These clubs are normally named by area, for example, The Amateur Radio Club of El Cajon will often host club nets and other events. Clubs can apply for club call signs that all members are free to use in events. Clubs are the best way to get and stay involved with HAM radio and have support and someone to learn from.

Starting points

The best way to start using your license is simply by buying a handheld radio and a fractional wavelength mag-mount antenna. With it you can easily place it on the roof of a car and join in on nets almost every night of the week. The next step up is a mobile station. You can use a simple mag-mount antenna but the most commonly used with a mobile is an antenna that retracts down approximately 1 foot. The next step is a base station in the comfort of your own home.



CW (Morse Code)

CW, more widely known as Morse code, is the international code made up of dits and dahs. Dits being shorter beeps, and dahs being longer beeps. CW is performed over the air with a key, A simple button that touches conductors together releasing a beep into the 'air stream'.



Helping Others.....



.....Always Worthwhile.

(Continued from page 4)

First Place Expert Equipment: Pat Bunsold

Announcements from The President Elect

Mike charged Ruth to have a Budget meeting before the end of December.

Ruth thanked all present for coming for food and fellowship. She said we should concentrate on caring for each other, training, and working together. WE must be ready to serve the community in an emergency. Our first Board meeting will be January Fourth. The regular meeting will be on the Thirteenth. We need a new Social Chair. Mike Passed the mail to Ruth. Ruth passed the mail to the incoming Secretary, Floyd Lang and said the Secretary will be in charge of the mail. Teresa volunteered to be Social Chair.

New members

Joseph announced new members. Mike M5MJM, his wife and daughter also in attendance.

Tim KJ6LHV

Joshua KJ6LRA, his wife and son were also present.

Joseph said we had a lot of renewals, close to 90.

Question

Ed Price asked Mike Maston if any club property had been returned from Paul and Ann Rios. Mike said he gave a report to Ruth Pattin.

Christmas Party

Tickets for prizes will be handed out at the Christmas Party. These tickets are for attendance during the year of club events, meetings, WAMO nets, etc.

A plaque for Past President will be awarded. Also, Ham of the Year will be announced. A plate will be added to the Ham of the Year perpetual trophy.

New Business

Dan KJ6IOB asked if we will be changing banks. Mike N6OPH said that it is up to the incoming treasurer.

WAMO Report: No Report

Membership Report

Beth Lang, Membership Chair, reported 50 in attendance, 49 members and 1 visitor.

Affiliated Clubs

No Business

Public Service

No Report

Education

No Report

President's Report

Mike Maston reported that this has been a tough year for the President, Vice President and Board of Directors; we can do better this year.

Mike commented on the fact that he held offices V.P., Secretary And President this year and that it had been tough on him also. It has also been tough on the whole club. It has been an honor and I have been proud to serve. Thank you.

Question

Rich Brown asked Mike: "Has SANDARC recovered the money for the Mother Goose Parade that was meant to be used by the ARCEC from Paul Rios?" Mike said SANDARC would have this money back next week.

Meeting Minutes Corrections

Steve Weed asked that last month's minutes be corrected. He said it should read: "Dave Ward running for the board" instead of "Dave Woods." In reference to KG6TDP it says TTP. Also, it reads: "In the event Mike is unable to obtain the P.O. Box keys by December 1. He is authorized to change keys." It should read: "He is ordered to change the locks." The minutes were accepted as "corrected."

Webmaster Report

The Webmaster, Alan Herr, said a parental release form needs to be signed for anything about minors before it can be posted on the website. I am looking for two volunteers to help me, one for contesting and one for direction finding. The President thanked Alan for building the website on the fly, for his help to the club. Mike also thanked Floyd and Anselmo for doing their secretary duties. Mike also thanked Beth Lang for being interim Membership Chair. They helped make the transition better. The club needs an email address. This will be looked into by the new club President.

Steve Weed asked for email addresses for members who would like to join the reflector so he could send them an invitation.

Christmas Party

The ARCEC Christmas party was on December 16 at 18:00 at Home Town Buffet in El Cajon. The Ham of the Year was announced. This honor went to Tom Bryan, W5COM. Incoming President Ruth Pattin was presented a gavel from President Mike Maston. Ruth presented Mike Maston a plaque for his service to the club this year. The plaque showed the offices held by Mike, The offices were Secretary, Vice President and President

Beth Lang, interim Membership Chair Issued tickets to members for their participation in club events, nets and meetings throughout the year. The tickets were used in the drawing for door prizes. We had fifty five in attendance at the party. Several door prizes were awarded. Prizes ranged from 6pc screwdriver kits, Small multi meters, A suduko game. Dremel tools, tins of popcorn four twenty five dollar cash prizes and the grand prize was a hand made quilt. The quilt was donated by Ruth Pattin and was awarded to Linda Weed. Good food and good company was enjoyed by all. The party concluded at 22:10

Floyd Lang
Acting Secretary
ARCEC



ASK AN ELMER

FOLLOW THE ELECTRON

Virgil K7VP

Atomic theory is much ignored in the study of radio, it is; however, vital in the understanding of just how radio works.

All matter is comprised of atoms and they are structured very similarly with a nucleus and they contain neutrons, protons and electrons in orbit around the nuclei. All matter is constructed like that and if we do not change the number of electrons the structure remains the basic element. We can disturb the number of the nuclei components and the basic structure changes to another element. We can also change the number of electrons and the element also changes to something other than the original element. This phenomenon is of particular interest to the electronic hobbyist such as Amateur Radio.

Let us explore for a moment just what occurs in the bands of the element where electrons are circling around the nuclei as a stable element. A stable element is one that has the proper number of Neutrons Protons and Electrons, in a static condition. The atomic number for that element is how the element is identified, Copper for instance has 28 electrons and that number is the atomic number. Now with 28 electrons there one in the outer ring of orbit and this is held loosely to the element. Now let's knock that one electron loose. This loose electron has no place to go but, it is in a hurry, it travels at 186,000 miles per second and that is fast in anyone's bicycle race. As it scurries along it will eventually bump into another electron and knocks it loose, which in turn will knock another and so on. This part of the phenomena is called current flow.

This part has confused many researchers a bit due to the fact that a missing electron makes the element a POSITIVE. The free running electrons NEGATIVE, and in theory we know that current flows from NEGATIVE to POSITIVE. The deficiency of an electron in the element makes it a prime candidate for a free electron to fill the spot that the electron was knocked loose from. Now, if the free electron settles in the empty spot the element is stable again. This reaction repeats it's self as long as there is a complete path for the current to flow. Now let's explore the flow of current for a moment. We know for instance that there are only 5 parts in electronics:

- A source of power
- A method to control it.
- Resistance
- Capacitance
- Inductance

Electronics should be simple, right?, well it is but, there are so many variables that these alone can make the person working with them scratch their head. Back to the flow of current, flowing from NEGATIVE to POSITIVE, we know that the current is the work horse and when current flows things happen.

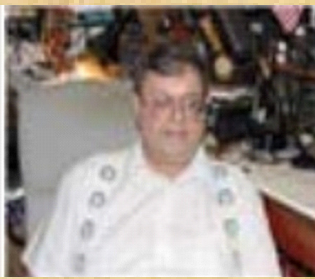
A source of power can be a Battery and wire can be hooked to the NEGATIVE terminal of the battery and a wire with a switch can be hooked to the POSITIVE terminal of the battery, a resistor can be placed between the switch and the wire from the NEGATIVE terminal of the battery, if the switch is closed the path for current flow is complete and the electrons will move, making current flow.

There are some considerations to make when current flows, like what is the result of the current through the resistor. It can perform work, for instance if the resistor is a light bulb, it will light. A practical example of this is the flashlight; you close the switch the light will come on. This circuit is a simple series DC circuit. This circuit is the basis for all electronics for all circuits no matter how complicated they appear, the circuit can be reduced to a simple series DC circuit. This is the kind of fun that anyone can have with electronics. Think up some stuff that you might identify as a simple series DC circuit and talk with your friends about them, who knows they might even become interested in the theory of Electricity/Electronics.



Crest Radio Museum

Pat Bunsold, WA6MHZ



"Winter Projects"

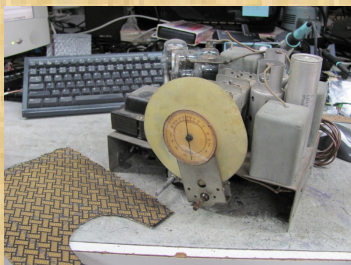
It is COLD TIMES in Crest now, down to the 40s some days! Wintertime is the perfect time of the year for a long term, difficult project that will take WEEKS to complete instead of just hours.

And so, every year, I search at the SCARS Antique Radio Swapmeet for a good Winter Project to work on. This year, at the Carlsbad event, I scored a 1930s era Aetna Tombstone radio. This set me back \$40, a little pricey, but also fairly rare. The Swapmeet was in Early November, and I went up on Friday early morning to the Holiday Inn where they have the Dutch Windmill right on I-5. I arrived at about 6AM even though it doesn't start till 7. There was a small Philco Cathedral I looked at, but it had a blown power transformer. Not likely I would find an exact replacement for it. As I thought about it, someone else nailed it. Gotta make quick decisions at the Swapmeet. But I had the Aetna now, and brought it to work to surmise the work ahead.

The Aetna was sold by Walgreens in the 30s as an economy broadcast receiver for those wanting to listen to FDR's Fireside Chats. Not luxurious like the Zeniths and Philcos, the Aetna was pretty spartan on niceties, but they did make a nice cabinet for it. Tube lineup is a 58, 57, 57, 2A3 and 80. Yes, those are OLD tubes! And very VERY RARE!

The Electronic part of it was fairly easy. All the original caps in it seemed to be good except for one or 2 tubulars I replaced with Like-Era ones from the Junkbox. I don't put 2010 parts in a 1930 radio! There is a great debate over this. Some restorers tear out all the resistors and caps and wholesale replace them all. While this might make the radio work better, it also makes it NON-AUTHENTIC and is like replacing the engine in a Model T with a new one out of a 2009 Car!

Today we will discuss the HARDEST part of the restoration. That is the WOODWORK portion of it.



This is what eats up the time. The cabinet had been painted and repainted many times, and it was just dreadful. That means that every bit of that paint needs to be SANDED OFF down to bare original wood.

I went to Home Depot and bought the required sandpaper and sanding blocks. Now it is time for excessive amounts of ELBOW GREASE! Over and over, the old stuff is sanded off, creating a fine dust that gets over everything. I put down newspapers and try to keep the dust contained to a degree. Then I have a hand vacuum which I periodically suck it up and keep the desk clean. The intensive sanding continues as more bare wood is revealed under the paint or varnish or whatever it is.

The PROPER way to finish the set would be to Shellac or Varnish it, but that is also too intensive and stressful. So I use a product called MINWAX that is a Stain and Sealer. Because the front panel of the Aetna is a dual color affair, I chose Minwax NATURAL (non-Stain) to apply to it. For the sides and top I chose a 2nd can of Minwax: English Chestnut, which is a Dark stain. I am not to that step yet. I am still sanding as I type. After coarse sanding, I use the ultrafine sanding block to give it a fine finish.



Next, the Minwax will be applied ever so carefully. After the Minwax has dried and looks good, then a clear finish coat will be applied. They recommend a Polyurethane that will give it a deep gloss. I need to go back to the Home Depot to get that. Sometimes you can get an ALL IN ONE stain-sealer-coating to make the job easier. But I want it to look PROFESSIONAL, not just repainted!

After the cabinet looks perfect, the hardware can be re-installed. I bought a new Grill cloth from Antique Radio Supply in Arizona along with new knobs. So, in a few days, I will have a NEW antique Radio for display and actual use. If it were EASY it wouldn't be fun! Look for a finished pic in a future issue of the Crest Radio Museum Chronicles.

Pat Bunsold WA6MHZ
Curator
Crest Radio Museum





Christmas Party 2010



January
2011

ARCEC Membership Form

Please print clearly, complete all info and return to Membership Chair with your payment:

☐ Individual Membership \$18.00

☐ Family Membership \$30.00

☐ Counterpoise by MAIL add \$18.00

☐ Counterpoise by Email or Website FREE

Name: _____

Class of License: _____

Other Family Members and Calls: _____

Address: _____

Call: _____ WAMO #: _____ Birthday: _____

Phone #: _____ Email address: _____

Check One: ☐ New Member ☐ Renewal ☐ Returning Member

*If you are a returning member, you will keep your original WAMO # _____

Check One: I give my permission to publish my info on the Club Roster coming out ☐ Yes ☐ No

If no, state exactly what information you do not want published:

Check all the apply: ARRL Member ARES Member Other _____

Would you like to be in the Counterpoise Spotlight? ☐ Yes ☐ No

Would you like to be a member of The East County Response Team? ☐ Yes ☐ No

Mail with payment to: Membership Chair, ARCEC, P.O. Box 50, El Cajon, CA 92022

***To be eligible for the drawing, must be postmarked no later than December 1 of the year.*

REV 9-2-2009

1960-61	Eddie Quinn	WA6BGS	1983	Pat Mathewson	WB6USL
1962	Bruse Williams	WA6IUC	1984	John Roessler	KB6WB
1963	Tony Boegman	WA6ZMZ	1985	Oscar Quintanilla	KF6UB
1964	Bob Ruby	WA6ZAC	1986	Roger Peck	N6CQW
1965	Seth Collier	WA6CDD	1987-88	Rick Risley	WU6K
1966	Lew Wisleer	WA6BUT	1989	Mike Garrison	KG6UP
1967	Tam Hodgson	WA6TAI	1990	Charles Roy	WS6F
1968	Don Smith	WB6ODR	1991-92	Al Gentz	KA6RLX
1969	John Scott	W6IJO	1993	Jason Lansky	NF6E
1970-71	Bob Smith	WB6ODR	1994-95	Al Gentz	KA6RLX
1972	Gary Clements	WA6HGU	1996-97	Tuck Miller	K6ZEC
1973	Joe Calvin	WB6LBM	1998	John Cordle	KF6XY
1974	Chuck Miller	WB6UKU	1999	Duncan Campbell	KF6ILA
1974-75	Padre Bible	WA6BDW	2000-01	Tuck Miller	NZ6T
1976	Robert Wilson	WA6RBP	2002	Mike Maston	N6OPH
1977	Norene Wilson	WA6WWP	2003	Pat Bunsold	WA6MHZ
1978-79	Don Grant	WB6DPO	2004-05	Stogie Panger	KG6JCW
1980	Pat Bunsold	WA6MHZ	2006-10	Paul Rios	KC6QLS
1981	JimQuinn	AD6O	2010	Mike Maston	N6OPH
1982	Dick Laffler	WA6COE	2011—now	Ruth Pattin	KJ6GRL

**Past
Presidents
1960—Present**

Amateur Radio Club of El Cajon
Photograph Release Form
The Counterpoise



The Amateur Radio Club of El Cajon (ARCEC) is including photographs of members, or family members, guests, and club functions, in its newsletter, ***The Counterpoise***, and photographs of the members and guests will be regularly used. We/I give permission for ARCEC to use photographs of my minor child with the following checked options.

- ☐ Publish with first name only
- ☐ First name and suffix of call
- ☐ First name and Call
- ☐ publish with first name and initial of last name
- ☐ publish full name and call sign, or
- ☐ other written option _____

If an option is NOT selected or a release form is not received, the photograph will NOT be published or the minor's face will be blurred out.

I understand the finished media may be used without compensation in ***The Counterpoise***.

This release is effective until terminated by a retraction in writing from the person granting this authorization. Such revocation will only be effective to prevent any expanded future use of the materials.

Signed copies must be sent to the two addresses listed below.

Child's Name: _____

I hereby certify I am the legal custodial parent / guardian of the above named minor.

Custodial parent / legal guardian **printed** name : _____

Custodial parent / legal guardian **signature** : _____

Date: _____

Address: _____

E-Mail: _____

Amateur Radio Club of El Cajon
P.O Box 50
El Cajon, CA 92022

Tuck Miller NF9T
Scanned copy to nf9t@arrl.org
807 Franklin
Danville, IL 61832